REMARKS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith, which place the application into condition for allowance. Applicants wish to thank the Examiner for stating that claims 80, 92 and 95 would be allowable if rewritten in independent form.

Claims 74-97 are in the application.

Claims 74-79, 81-89, 93, 94, 96 and 97 were rejected under 35 U.S.C. 103(a) as being unpatentable over Georger, Jr. et al. (U.S. Patent No. 5,510,628) in view of Kawata (U.S. patent No. 6,061,113).

Claims 90 and 91 were rejected under 35 U.S.C. 103(a) as being unpatentable over Georger, Jr. et al. in view of Kawata as applied to claims 74-79, 81-89, 93, 94, 96, and 97 above, and further in view of Grainger et al. (U.S. Patent No. 5,686,549).

Georger does not teach that a liquid crystal material is aligned on an alignment layer. In fact, Georger does not teach an alignment layer for a liquid crystal material layer at all. The Examiner concludes from the recital of certain polymers in column 5, lines 35 - 45, that these may be patterned. However, there is no teaching in Georger, that it is specifically the polymeric materials recited in column 5, lines 35 - 45 which are to be patterned. The only material taught to become patterned are those recited in column 6, lines 5 - 10. However, such pattern as described in column 6, lines 5 - 10 is not an alignment layer for a mono- or multi-layer liquid crystal material, nor does it act as such. In fact, Georger does not teach or suggest that a liquid crystal material is aligned. The Examiner seems to conclude from column 15, lines 60 - 67, that the "micro trenches or wells" mentioned therein provide for an alignment of the liquid crystal

transducer. Applicants would like to respectfully point out that neither the recited passage nor any other passage in Georger suggests such alignment of a liquid crystal transducer. It is only explicitly said that micro trenches may be coated with a cell adhesion promoter while the sides and steps are coated with an adhesion inhibitor. It is not clear why this should contain a teaching to the extent that a liquid crystal transducer be aligned through the micro trenches. Furthermore, it is respectfully pointed out that the term "micro trench" implies the absence of matter, which is contrary to what the term "alignment layer" implies, namely the presence of matter. To construe the micro trenches of Georger as an alignment layer would be far-fetched.

Thus, Georger does not teach that a mono- or multi-layer liquid crystal material is aligned on an alignment layer nor does it teach or suggest an alignment layer at all.

Additionally, Georger does not teach a combined alignment layer. However, the Examiner argues that such combined alignment layer is obvious in view of a combination of Georger and Kawata et al. The Examiner argues that Kawata is directed to a film for alignment on a substrate and is thus "analogous art" to Georger. Applicants would like to respectfully point out that this argument is defective, since Georger is not concerned with a film for alignment on a substrate. Instead, Georger is concerned with patterned surfaces for selective adhesion and outgrowth of cells (see Abstract). Kawata is concerned with an optical compensatory sheet and with a liquid crystal display and is thus in a completely different field. The Examiner draws upon a combination of these two documents, which are distinctly remote from each other. Hence, taking Georger as the primary reference, one would have no incentive to combine it with Kawata, which lies, in a totally different field. It is clear from various passages throughout Kawata that this document is not at all concerned with cell growth or cell culturing. The aim of Kawata is the provision of an optical compensatory sheet having high optical purity, appropriate

for mass production (column 2, lines 65 - 67) and the preparation of an improved optical compensatory sheet and a liquid crystal display using such improved optical compensatory sheet (column 3, lines 3 - 6).

It is respectfully submitted that by combining a reference with another reference from a completely different field, the applied combination of references is inappropriate. It is therefore respectfully requested that the Examiner withdraw this rejection based on a combination of Georger with Kawata.

Further, Granger teaches that the polymer molecule in the ultra thin film may be functionalized by a liquid crystal molecule. However, this cannot be construed to be the same as a mono- or multi-layer of liquid crystal material on an alignment layer as required by claim 74 of the present application. Furthermore, where Granger et al. talks about cell growth and useful points of attachment for cell growth (column 15, lines 14 - 17) no mention is made of a liquid crystal. Thus, Grainger does not teach that a mono- or multi-layer liquid crystal material is aligned on an alignment layer nor does it teach or suggest an alignment layer at all.

Accordingly, independent claim 74 is believed to be distinguishable from the applied combination of Georger and Kawata; and even from the combination of Georger, Kawata and Grainger.

Claims 75-97 are dependent from independent claim 74, and, due to such dependency, are also believed to be distinguishable from the applied combinations of Georger and Kawata; and Georger, Kawata and Grainger for at least the reasons previously described.

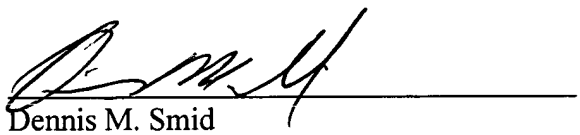
Therefore, claims 74-97 are believed to be distinguishable from the applied combinations of Georger and Kawata; and Georger, Kawata and Grainger.

In the event, that the Examiner disagrees with any of the foregoing comments concerning the disclosures in the cited prior art, it is requested that the Examiner indicate where, in the reference, there is the basis for a contrary view.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable over the prior art, and early and favorable consideration thereof is solicited.

Please charge any fees incurred by reason of this response and not paid herewith to Deposit Account No. 50-0320.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By: 

Dennis M. Smid
Reg. No. 34,930
(212) 588-0800